

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

Claims 1-9 (Cancelled).

10. (New) A radio communication apparatus that communicates with a plurality of communicating parties including a first communicating party to which a directivity has formed and a second communicating party to which a directivity has not formed, said radio communication apparatus comprising:

a detector that detects a null point in the directivity toward the first communicating party;

an estimator that estimates a direction where the second communicating party is present, from a direction of the null point; and

a generator that, according to the estimation result, generates a weight coefficient for use in formation of the directivity toward the second communicating party.

11. (New) The radio communication apparatus of claim 10, wherein:

the estimator compares directivities corresponding respectively to a plurality of first communicating parties and estimates that a source of interference against the second communicating party is present in a direction where a null point forms in at least one directivity of the first communicating parties and where a null point does not form in at least one directivity of the first communicating parties; and

the generator generates the weight coefficient such that a null point forms in the estimated direction.

12. (New) The radio communication apparatus of claim 10, wherein:

the estimator compares directivities corresponding respectively to a plurality of first communicating parties and estimates that the second communicating party is present in a direction where a null point forms in all directivities of the first communicating parties; and

the generator generates the weight coefficient such that a beam forms in the estimated direction.

13. (New) The radio communication apparatus of claim 10, further comprising a comparator that compares a first reception quality, obtained when the directivity towards the first

communicating party is in use, and a second reception quality, obtained when said directivity toward the first communicating party is not in use, wherein

the estimator estimates the direction where the second communicating party is present, based on the comparison result.

14. (New) The radio communication apparatus of claim 13, wherein:

when the first reception quality is better than the second reception quality, the estimator estimates that a source of interference against the second communicating party is present in a direction where a null point forms in the directivity toward the first communicating party;

the generator generates the weight coefficient such that a null point forms in the estimated direction.

15. (New) The radio communication apparatus of claim 13, wherein:

when the first reception quality is poorer than the second reception quality, the estimator estimates that the second communicating party is present in a direction where a null point forms in the directivity toward the first communicating party; and

the generator generates the weight coefficient such that a beam forms in the estimated direction.

16. (New) The radio communication apparatus of claim 10, further comprising a transmission coefficient generator that generates a weight coefficient by which a transmission signal is multiplied using the weight coefficient generated in the generator.

17. (New) A weight coefficient generation method in a radio communication apparatus that communicates with a plurality of communicating parties including a first communicating party to which a directivity has formed and a second communicating party to which a directivity has not formed, the method comprising:  
detecting a null point in the directivity toward the first communicating party;  
estimating a direction where the second communicating party is present, from a direction of the null point; and  
according to the estimation result, generating a weight coefficient for use in formation of the directivity toward the second communicating party.